

(FILE 'HOME' ENTERED AT 15:07:57 ON 01 JUL 2003)

FILE 'USPATFULL' ENTERED AT 15:15:09 ON 01 JUL 2003

L1 57 S (SOMATOSTATIN AND((ANIONIC POLYMER) OR POLYACRYLAMIDE OR (POL  
L2 57 SORT L1 AI  
L3 57 S L2  
L4 6 S L2 AND (SOMATOSTATIN (P) (POLYMER OR OLIGOMER))  
L5 10 S L1 AND ((ANIONIC POLYMER) OR POLYACRYLAMIDE OR (POLYACCHARIDE  
L6 10 S L1 AND ((ANIONIC POLYMER) OR POLYACRYLAMIDE OR (POLYACCHARIDE

=> d 8-10 bib,kwic

L6 ANSWER 8 OF 10 USPATFULL  
AN 97:42610 USPATFULL  
TI Preparation of biologically active molecules by molecular imprinting  
IN Domb, Abraham J., Efrat, Israel  
PA Yissum Research Development Co. of The Hebrew University of Jerusalem,  
Jerusalem, Israel (non-U.S. corporation)  
PI US 5630978 19970520  
AI US 1995-476606 19950607 (8)  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Sweet, Mark D.  
LREP Knowles, Sherry M.Kilpatrick & Cody  
CLMN Number of Claims: 36  
ECL Exemplary Claim: 1  
DRWN 4 Drawing Figure(s); 4 Drawing Page(s)  
LN.CNT 1257  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
DETD . . . A25, 873-893, 1988]; maleic anhydride-styrene copolymers  
[Lewis, F. M., Mayo, F. R., J. Amer. Chem. Soc. 70, 153-1536, 1948]; and  
**polyacrylamide** sialic acid copolymer [Spaltenstein, A.,  
Whitesides, G. M., J. Amer. Chem. Sci. 113, 686-687, 1991]. These  
polymers showed a range. . .  
CLM What is claimed is:  
5. The method of claim 1 wherein the template molecule is selected from  
the group consisting of carbohydrates, oligosaccharides,  
**polysaccharides**, steroids, nucleic acids, nucleotides,  
nucleosides, oligonucleotides, genes, or vitamins.  
  
. . . wherein the hormone is selected from the group consisting of peptide  
hormones, amine hormones, steroid hormones, adrenocorticotropin,  
somatotropin releasing hormone, **somatostatin**, prolactin  
releasing hormone, prolactin inhibitory hormone, FSH- and LH-releasing  
hormone, vasopressin, and oxytocin.

L6 ANSWER 9 OF 10 USPATFULL  
AN 90:56098 USPATFULL  
TI Continuous release formulations  
IN Churchill, Jeffrey R., Northwich, United Kingdom  
Hutchinson, Francis G., Lymm, United Kingdom  
PA ~~Imperial~~ Chemical Industries, London, England (non-U.S. corporation)  
PI US 4942035 19900717  
AI US 1985-716651 19850327 (6)  
RLI Division of Ser. No. US 1983-485454, filed on 15 Apr 1983, now patented,  
Pat. No. US 4526938  
PRAI GB 1982-11704 19820422  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Waddell, Frederick E.  
LREP Cushman, Darby & Cushman  
CLMN Number of Claims: 6

ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 575

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM The pharmaceutically or veterinarily acceptable hydrophilic polymer B may be, for example, polyvinyl alcohol, polyvinylpyrrolidone, polyethylene oxide, polyethylene glycol, **polyacrylamide**, polymethacrylamide, dextran, alginic acid, sodium alginate, gelatine or a copolymer of two or more of the monomers from which the. . .

CLM What is claimed is:

. . . are derived; and the pharmaceutically or veterinarily acceptable hydrophilic polymer B is selected from polyvinyl alcohol, polyvinyl pyrrolidone, polyethylene glycol, **polyacrylamide**, polymethacrylamide, dextran, alginic acid, sodium alginate, and gelatine, and copolymers of two or more of the monomers from which the.

. . . vasopresin, adrenocorticotrophic hormone, epidermal growth factor, prolactin, luliberin or lutenising hormone releasing hormone, growth hormone, growth hormone releasing factor, insulin, **somatostatin**, glucagon, interferon, gastrin, tetragastrin, pentagastrin, urogastone, secretin, calcitonin, enkephalins, endorphins, angiotensins, renin, bradykinin, bacitracins, polymyxins, colistins, tyrocidin, gramicidines, and synthetic. . .

L6 ANSWER 10 OF 10 USPATFULL

AN 83:46690 USPATFULL

TI Preparation of substances with encapsulated cells

IN Lim, Franklin, Richmond, VA, United States

PA Damon Corporation, Needham Heights, MA, United States (U.S. corporation)

PI US 4409331 19831011

AI US 1982-372835 19820428 (6)

DCD 19991005

RLI Continuation-in-part of Ser. No. US 1981-243583, filed on 13 Mar 1981, now abandoned which is a continuation-in-part of Ser. No. US 1979-24600, filed on 28 Mar 1979, now patented, Pat. No. US 4352883 which is a continuation-in-part of Ser. No. US 1978-953413, filed on 23 Oct 1978, now abandoned

DT Utility

FS Granted

EXNAM Primary Examiner: Naff, David M.

LREP Lahive & Cockfield

CLMN Number of Claims: 25

ECL Exemplary Claim: 18

DRWN 2 Drawing Figure(s); 2 Drawing Page(s)

LN.CNT 895

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD In general, the concentrations of monatomic ions and **anionic polymer** used in this step may vary widely. Optimum concentrations may be readily determined empirically, and depend on exposure time as. . .

CLM What is claimed is:

. . . by reacting cationic groups on polymer chains having a molecular weight greater than about 3000 with anionic groups on a **polysaccharide** gel encapsulating said cells to crosslink surface layers of said **polysaccharide** gel to form said semipermeable membranes; B. suspending said encapsulated cells in an aqueous culture medium; C. allowing said cells. . .

. . . a solution of multivalent, physiologically compatible cations to gel the droplets to form discrete, shape-retaining, water-insoluble temporary capsules as said **polysaccharide** gel encapsulating said cells; and (4) cross-linking surface layers of said temporary capsules to produce semipermeable membranes about said gelled. . .

. . . 1 or 5 wherein the substance harvested in step (E) is selected from the group consisting of insulin, glucagon, prolactin,

**somatostatin**, thyroxin, steroid hormones, pituitary hormones, interferons, FSH, and PTH.

- . . . an upper limit of permeability sufficient to allow traverse of nutrients required by said cells, said semipermeable membranes comprising a **polysaccharide** gel having plural anionic groups cross-linked with a polymer having a molecular weight greater than about 3000 and having plural. . .
- . . . producing in vitro a substance selected from the group consisting of insulin, glycogen, growth hormones, pituitary hormones, steroid hormones, prolactin, **somatostatin**, PTH, and FSH.

(FILE 'HOME' ENTERED AT 15:07:57 ON 01 JUL 2003)

FILE 'USPATFULL' ENTERED AT 15:15:09 ON 01 JUL 2003

L1 57 S (SOMATOSTATIN AND((ANIONIC POLYMER) OR POLYACRYLAMIDE OR (POL  
L2 57 SORT L1 AI  
L3 57 S L2  
L4 6 S L2 AND (SOMATOSTATIN (P) (POLYMER OR OLIGOMER))

=> d 5,6 bib,kwic

L4 ANSWER 5 OF 6 USPATFULL  
AN 97:120306 USPATFULL  
TI Pharmaceutical compositions in the form of particles suitable for the  
controlled release of pharmacologically active substances and process  
for preparing the same compositions  
IN Canal, Tiziana, Trieste, Italy  
Lovrecich, Mara Lucia, Trieste, Italy  
Carli, Fabio, Trieste, Italy  
PA Vectorpharma International S.p.A., Trieste, Italy (non-U.S. corporation)  
PI US 5700486 19971223  
AI US 1996-641039 19960430 (8)  
RLI Division of Ser. No. US 1993-139051, filed on 21 Oct 1993, now patented,  
Pat. No. US 5536508 which is a continuation of Ser. No. US 1991-794905,  
filed on 20 Nov 1991, now abandoned  
PRAI IT 1990-22155 19901122  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Azpuru, Carlos A.  
LREP Birch, Stewart, Kolasch & Birch, LLP  
CLMN Number of Claims: 20  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 824

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . by the compositions object of the present invention, is based  
on the extrusion of the mass consisting of the biodegradable  
**polymer** or the jellifying/bioadhesive polysaccharide, the  
amphiphilic **polymer**, the agent modifying the interface  
properties and the active agent. The extrusible mass may be obtained by  
dissolving the **polymers** and the agent modifying the interface  
properties in the amphiphilic **polymer** or in suitable amount of  
solvent. The materials may be either pre-mixed and fed into the  
pre-heated extruder or heated, . . . or still heated by the heat  
generated during the extrusion itself. The optimum of temperature  
changes according to the employed **polymers** and to the amount  
of solvent, if present at all. The composition is extruded and then  
cooled. The extruded product. . . the compositions in the form of the  
particles object of the present invention involves spray-drying the  
mixture consisting of the **polymers**, the agent modifying the  
interface properties, the active agent and the solvent in a flow of warm  
air according to. . . type are: vasopressin, epidermic growth factor  
(EGF), luliberin or luteinizing hormone-release hormone (LH-RH), LH-RH  
analogues, (Des-Gly, D-Trp.sup.6, Pro.sup.9 -ethylamide)-LH-RH analogue,  
**somatostatin**, somatotropin, interferon, calcitonin, enkephalin,  
endorphin, angiotensin, heparin and derivatives, synthetic analogues  
and/or muteins or active fragments thereof. The solvents employed. . .  
. as water, aqueous solutions with different pH-values, methanol,  
ethanol, methylene chloride, chloroform, acetonitrile, isopropyl  
alcohol, acetone, methylethylketone, etc. The biodegradable  
**polymers** comprise: polylactic acid, polyglycolic acid and co-  
**polymers** thereof, polyhydroxybutyric acid and copolymers  
thereof, polycaprolacton, polyorthoesters, polyanhydrides, chitins,  
chitosan, ialuronic acid, collagen and co-**polymers** thereof,

etc. Suitable amphiphilic **polymers** comprise:  
polyethyleneglycols, polyvinylpyrrolidone, polyvinylalcohols, etc.  
Suitable jellifying and/or adhesive polysaccharide **polymers**  
comprise: scleroglucan, xanthan, chitins and chitosans, cellulose and  
derivatives, alginates, hyaluronic acid, etc. Agents able to modify the  
interface properties. . . for instance sorbitan esters, polysorbates,  
lecithins and other phospholipides, stearic acid, stearates and  
derivatives, etc. The percentage of the amphiphilic **polymer**  
relative to the biodegradable **polymer** and/or polysaccharide  
**polymer** may range from 0.1% to 99.9% and it is preferably  
comprised between 1% and 90% by weight. The percentage of the agents  
modifying the interface properties of the particles is comprised between  
0.1% and 99.9% with regard to the **polymers** and preferably  
between 0.1% and 50% by weight. The percentage of the active substance  
in the compositions is comprised between. . .

CLM What is claimed is:

7. Process according to claim 1, wherein the **polysaccharide**  
polymer is selected from the group consisting of scleroglucane, xanthan,  
chitins and chitosans, **cellulose** and derivatives thereof and  
alginates.

14. Process according to claim 1, wherein said pharmaceutically active  
substance is **somatostatin**.

L4 ANSWER 6 OF 6 USPATFULL

AN 95:98947 USPATFULL

TI Pharmaceutical tablets releasing the active substance after a definite  
period of time

IN Conte, Ubaldo, Busto Arsizio, Italy

La Manna, Aldo, Pavia, Italy

Maggi, Lauretta, Pavia, Italy

PA Jagotec AG, Hergiswill, Switzerland (non-U.S. corporation)

PI US 5464633 19951107

AI US 1994-248232 19940524 (8)

DT Utility

FS Granted

EXNAM Primary Examiner: Page, Thurman K.; Assistant Examiner: Spear, James M.

CLMN Number of Claims: 15

ECL Exemplary Claim: 1

DRWN 1 Drawing Figure(s); 1 Drawing Page(s)

LN.CNT 912

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

CLM What is claimed is:

5. Tablet as claimed in claim 1, characterized in that said active  
substance is a peptide drug selected from the group consisting of  
insulin, calcitonin, and **somatostatin**.

. . . Pharmaceutical tablet for oral administration suitable to release a  
peptide drug selected from the group consisting of insulin, calcitonin  
and **somatostatin** after a definite period of time, said tablet  
consisting of: core containing a peptide drug selected from the group  
consisting of insulin, calcitonin and **somatostatin**, a  
polymeric substance which swells and/or gels and/or erodes on contact  
with water or aqueous liquids and is selected from. . . from the  
group consisting of hydroxypropylmethylcellulose having a methoxyl  
content of 22.1 and a viscosity of 4,000 centipoises, carboxy vinyl  
**polymers**, glucans, mannans, xanthans and carboxymethylcellulose  
and adjuvants and excipients; wherein said layer is applied externally  
to said core and has. . .

. . . characterized in that said adjuvant substances of the core are  
hydrophilic diluents selected from the group consisting of mannitol,  
lactose, **starches** of different source, sorbitol, xylitol.

- . . . flurazepam, oxazepam, chlordiazepoxide, medazepam, lorazepam, trapidil, urapidil, benziodarone, dipyridamole, diltiazem, lidoflazine, naphthydrofuryl oxalate, perhexiline maleate, oxyfedrine hydrochloride, insulin, calcitonin and **somatostatin**.
- . . . said pharmaceutical tablet has a gastroresistant and enterosoluble coating which consists of polymeric materials selected from the group consisting of **cellulose** acetophthalate, **cellulose** acetopropionate, **cellulose** trimellitate, acrylic polymers, acrylic copolymers, methacrylic polymers and methacrylic copolymers.

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FILE 'CAPLUS' ENTERED AT 15:47:49 ON 01 JUL 2003  
L7 137 S (SOMATOSTATIN AND ((ANIONIC POLYMER) OR POLYACRYLAMIDE OR (POL  
L8 4 S L7 AND (CHARGE OR DENSITY)

=> d bib,abs,kwic 3,4

L8 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS  
AN 1998:509085 CAPLUS  
DN 129:127192  
TI Preparation of particles for inhalation  
IN Edwards, David A.; Hanes, Justin; Evora, Carmen; Langer, Robert S.;  
Vanbever, Rita; Mintzes, Jeffrey; Wang, Jue; Chen, Donghao  
PA Massachusetts Institute of Technology, USA; The Penn State Research  
Foundation  
SO PCT Int. Appl., 64 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9831346	A1	19980723	WO 1997-US20930	19971117
	W: CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5855913	A	19990105	US 1997-784421	19970116
	CA 2403349	AA	19980723	CA 1997-2403349	19971117
	EP 954282	A1	19991110	EP 1997-947545	19971117
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2001526634	T2	20011218	JP 1998-534332	19971117
	CA 2277801	C	20021015	CA 1997-2277801	19971117
	US 2003068277	A1	20030410	US 2002-94955	20020307
PRAI	US 1997-784421	A	19970116		
	US 1997-59004P	P	19970915		
	CA 1997-2277801	A3	19971117		
	US 1997-971791	A2	19971117		
	WO 1997-US20930	W	19971117		
	US 1999-394233	A2	19990913		
	US 2001-909145	B1	20010719		

AB Particles incorporating a surfactant and/or a hydrophilic or hydrophobic complex of a pos. or neg. charged therapeutic agent and a charged mol. of opposite **charge** for drug delivery to the pulmonary system, and methods for their synthesis and administration are provided. In a preferred embodiment, the particles are made of a biodegradable material and have a tap d. less than 0.4 g/cm<sup>3</sup> and a mass mean diam. 5-30 .mu.m, which together yield an aerodynamic diam. of the particles of 1-3 .mu.m. The particles may be formed of biodegradable materials such as biodegradable polymers. For example, the particles may be formed of poly(lactic acid) or poly(glycolic acid) or copolymers thereof. Alternatively, the particles may be formed solely of a therapeutic or diagnostic agent and a surfactant. Surfactants can be incorporated on the particle surface for example by coating the particle after particle formation, or by incorporating the surfactant in the material forming the particle prior to formation of the particle. Exemplary surfactants include phosphoglycerides such as dipalmitoyl phosphatidylcholine (DPPC). The particles can be effectively aerosolized for administration to the respiratory tract to permit systemic or local delivery of wide a variety of therapeutic agents. Formation of complexes of pos. or neg. charged therapeutic agents with mols. of opposite **charge** can allow control of the release rate of the agents into the blood stream following administration. Porous particles were prepd. by spray drying a soln. contg. insulin 2, albumins 19, lactose 19, and dipalmitoylphosphatidylcholine 60 %.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Particles incorporating a surfactant and/or a hydrophilic or hydrophobic complex of a pos. or neg. charged therapeutic agent and a charged mol. of opposite **charge** for drug delivery to the pulmonary system, and methods for their synthesis and administration are provided. In a preferred embodiment, the particles are made of a biodegradable material and have a tap d. less than 0.4 g/cm<sup>3</sup> and a mass mean diam. 5-30 .mu.m, which together yield an aerodynamic diam. of the particles of 1-3 .mu.m. The particles may be formed of biodegradable materials such as biodegradable polymers. For example, the particles may be formed of poly(lactic acid) or poly(glycolic acid) or copolymers thereof. Alternatively, the particles may be formed solely of a therapeutic or diagnostic agent and a surfactant. Surfactants can be incorporated on the particle surface for example by coating the particle after particle formation, or by incorporating the surfactant in the material forming the particle prior to formation of the particle. Exemplary surfactants include phosphoglycerides such as dipalmitoyl phosphatidylcholine (DPPC). The particles can be effectively aerosolized for administration to the respiratory tract to permit systemic or local delivery of wide a variety of therapeutic agents. Formation of complexes of pos. or neg. charged therapeutic agents with mols. of opposite **charge** can allow control of the release rate of the agents into the blood stream following administration. Porous particles were prepd. by spray drying a soln. contg. insulin 2, albumins 19, lactose 19, and dipalmitoylphosphatidylcholine 60 %.

IT Albumins, biological studies  
Lipids, biological studies  
Nucleic acids  
Nucleotides, biological studies  
Oligonucleotides

**Polysaccharides**, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(particulate compns. contg. therapeutic agents and surfactants for inhalation)

IT 50-28-2, Estradiol, biological studies 51-34-3, Scopolamine 54-11-5, Nicotine 57-83-0, Progesterone, biological studies 58-22-0, Testosterone 68-22-4, Norethindrone 69-72-7, biological studies 437-38-7, Fentanyl 439-14-5, Valium 4205-90-7, Clonidine 9004-10-8, Insulin, biological studies 9004-17-5, Zinc protamine insulin 9007-12-9, Calcitonin 15826-37-6, Cromolyn sodium 18559-94-9, Albuterol 51110-01-1, **Somatostatin** 53714-56-0, Leuprolide 89365-50-4, Salmeterol 103370-86-1, Parathyroid hormone-related peptide 143011-72-7, Granulocyte colony-stimulating factor

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(particulate compns. contg. therapeutic agents and surfactants for inhalation)

L8 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS

AN 1998:479558 CAPLUS

DN 129:95726

TI Preparation of **polysaccharide**-peptide derivatives with effective surface **charges** as radionuclide ligands

IN Holmberg, Anders; Westlin, Jan-Erik; Nilsson, Sten

PA Map Medical Technologies Oy, Finland

SO PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9828336	A1	19980702	WO 1997-FI827	19971222
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,				



DK, EE, ES, FI, GB, GE, GH, GW, HU, ID, IL, IS, JP, KE, KG, KP,  
 KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO,  
 NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA,  
 UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,  
 FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,  
 GA, GN, ML, MR, NE, SN, TD, TG

FI 9605181	A	19980621	FI 1996-5181	19961220
AU 9878731	A1	19980717	AU 1998-78731	19971222
AU 736528	B2	20010802		
EP 951478	A1	19991027	EP 1997-948934	19971222
R: AT, BE, CH, DE, ES, FR, IT, LI, NL, SE, IE, LT, LV, FI				
JP 2001507345	T2	20010605	JP 1998-528443	19971222
NO 9903024	A	19990812	NO 1999-3024	19990618
US 6455025	B1	20020924	US 1999-331405	19991018
PRAI FI 1996-5181	A	19961220		
WO 1997-FI827	W	19971222		

OS MARPAT 129:95726

AB The present invention is related to **polysaccharide-somatostatin**-analogs and derivs. thereof provided with effective surface **charges**. These compds. have remarkable therapeutic and diagnostic properties. Thus, activation of dextran by oxidn. with sodium periodate, followed by reaction with **somatostatin**, taurine, and sodium cyanoborohydride gave a dextran-**somatostatin**-taurine conjugate that could be labeled with technetium 99m.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Preparation of **polysaccharide**-peptide derivatives with effective surface **charges** as radionuclide ligands

AB The present invention is related to **polysaccharide-somatostatin**-analogs and derivs. thereof provided with effective surface **charges**. These compds. have remarkable therapeutic and diagnostic properties. Thus, activation of dextran by oxidn. with sodium periodate, followed by reaction with **somatostatin**, taurine, and sodium cyanoborohydride gave a dextran-**somatostatin**-taurine conjugate that could be labeled with technetium 99m.

ST oligosaccharide peptide conjugate prepn radionuclide ligand; taurine dextran **somatostatin** conjugate prepn radiotherapy

IT **Polysaccharides**, preparation

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (activated reductive amination products with **somatostatin** and taurine, radionuclide complexes; prepn. of **polysaccharide**-peptide derivs. with effective surface **charges** as radionuclide ligands)

IT Radionuclides, preparation

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (complexes with **polysaccharide-somatostatin** conjugates and taurine; prepn. of **polysaccharide**-peptide derivs. with effective surface **charges** as radionuclide ligands)

IT Radiotherapy

(prepn. of **polysaccharide**-peptide derivs. with effective surface **charges** as radionuclide ligands)

IT 14133-76-7DP, Technetium 99, complexes with **polysaccharide-somatostatin** conjugates and taurine, preparation

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (metastable; prepn. of **polysaccharide**-peptide derivs. with effective surface **charges** as radionuclide ligands)

IT 51-67-2DP, Tyramine, reaction products with **polysaccharide-somatostatin** conjugates and taurine, radionuclide complexes  
60-00-4DP, EDTA, reaction products with **polysaccharide-somatostatin** conjugates and taurine, radionuclide complexes  
67-42-5DP, EGTA, reaction products with **polysaccharide-somatostatin** conjugates and taurine, radionuclide complexes  
67-43-6DP, DTPA, reaction products with **polysaccharide-somatostatin** conjugates and taurine, radionuclide complexes  
107-35-7DP, Taurine, reaction products with **polysaccharide-somatostatin** conjugates, radionuclide complexes 869-52-3DP, TTHA, reaction products with **polysaccharide-somatostatin** conjugates and taurine, radionuclide complexes 9004-54-0DP, Dextran, activated reductive amination products with **somatostatin** and taurine, radionuclide complexes, preparation 10043-66-0DP, Iodine-131, reaction products with tyramine-**polysaccharide-somatostatin** conjugates and taurine, preparation 10098-91-6DP, Yttrium-90, complexes with **polysaccharide-somatostatin** conjugates and taurine, preparation 14378-26-8DP, Rhenium-188, complexes with **polysaccharide-somatostatin** conjugates and taurine, preparation 15750-15-9DP, Indium-111, complexes with **polysaccharide-somatostatin** conjugates and taurine, preparation 35998-29-9DP, HBED, reaction products with **polysaccharide-somatostatin** conjugates and taurine, radionuclide complexes 38916-34-6DP, **Somatostatin**, reductive alkylation products with activated **polysaccharides** and taurine, radionuclide complexes 60239-18-1DP, DOTA, reaction products with **polysaccharide-somatostatin** conjugates and taurine, radionuclide complexes 60239-22-7DP, TETA, reaction products with **polysaccharide-somatostatin** conjugates and taurine, radionuclide complexes 137174-09-5DP, reaction products with **polysaccharide-somatostatin** conjugates and taurine, radionuclide complexes

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of **polysaccharide-peptide** derivs. with effective surface **charges** as radionuclide ligands)

(FILE 'USPATFULL' ENTERED AT 15:15:09 ON 01 JUL 2003)

FILE 'CAPLUS' ENTERED AT 15:47:49 ON 01 JUL 2003

L7 137 S (SOMATOSTATIN AND ((ANIONIC POLYMER) OR POLYACRYLAMIDE OR (POL  
L8 4 S L7 AND (CHARGE OR DENSITY)  
L9 11 S L7 AND SUSPENSION  
L10 11 S L9 NOT L8

=> d bib,abs,kwic 7-11

L10 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2003 ACS

AN 1998:501150 CAPLUS

DN 129:166204

TI Pharmaceutical preparation comprising coated capsules or tablets  
containing a liposome powder encapsulating a drug

IN Garces Garces, Josep; Bonilla Munoz, Angel; Parente Duena, Antonio

PA Lipotec, S.A., Spain

SO Eur. Pat. Appl., 10 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 855179	A2	19980729	EP 1997-500231	19971231
	EP 855179	A3	19990324		
	EP 855179	B1	20021113		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	ES 2130056	A1	19990616	ES 1997-73	19970116
	ES 2130056	B1	20000201		
	JP 10203964	A2	19980804	JP 1998-5926	19980114
PRAI	ES 1997-73	A	19970116		

AB A new pharmaceutical prepn. to improve the oral bioavailability of  
difficult-to-absorb drugs comprising capsules or tablets coated with  
enteric material contg. a freeze-dried or evapd. liposome powder  
incorporating a drug of pharmacol. benefit. A mixt. of 800 mg cholesterol  
and 800 mg hydrogenated lecithin was added to 1.25 g nimesulide (I) and  
heated at 60.degree. to obtain a **suspension** of liposomes  
incorporating I. The resulting liposome **suspension** was frozen  
and freeze-dried to obtain a freeze-dried prepn. which was placed in hard  
gelatin capsules (114 mg in each capsule). The resulting capsules were  
coated with Eudragit L by repeated immersion in a soln. of enteric polymer  
in isopropanol and subsequent drying in a current of air. The blood level  
of I in volunteers after 5 h was 7.31 as compared with 2.69 .mu.g/mL.

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in isopropanol and subsequent drying in a current of air. The blood level  
of I in volunteers after 5 h was 7.31 as compared with 2.69 .mu.g/mL.

IT Acrylic polymers, biological studies  
Albumins, biological studies  
Disaccharides  
Enzymes, biological studies  
Estrogens  
Glycoproteins, general, biological studies  
Glycosaminoglycans, biological studies

Hormones, animal, biological studies  
Immunoglobulins  
Interferons  
Interleukins  
Lipoproteins  
Monosaccharides  
Neurotransmitters  
Nucleic acids  
Peptides, biological studies  
Polynucleotides

**Polysaccharides**, biological studies  
Prostaglandins  
Proteins, general, biological studies  
RNA  
Radionuclides, biological studies  
Salts, biological studies  
Toxins  
Vitamins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(pharmaceutical prepn. comprising coated capsules or tablets contg.  
liposome powder encapsulating drug)

IT 50-02-2, Dexamethasone 50-07-7, Mitomycin c 50-28-2, Estradiol,  
biological studies 51-84-3, Acetylcholine, biological studies 53-86-1,  
Indomethacin 57-22-7 57-63-6, 17-Ethynyl estradiol 57-83-0,  
Progesterone, biological studies 57-88-5, Cholesterol, biological  
studies 59-02-9, .alpha.-Tocopherol 59-05-2, Methotrexate 65-71-4,  
Thymine 68-19-9, Vitamin b12 76-57-3, Codeine 92-13-7, Pilocarpine  
137-58-6, Lidocaine 439-14-5, Diazepam 865-21-4, Vinblastine  
1397-89-3, Amphotericin b 1400-61-9, Nystatin 1403-66-3, Gentamycin  
1406-05-9, Penicillin 1668-00-4, ArsenazoIII 7440-36-0D, Antimony,  
derivs., biological studies 7681-49-4, Sodium fluoride, biological  
studies 7720-78-7, Iron II sulfate 8001-27-2, Hirudin 9001-05-2,  
Catalase 9004-10-8, Insulin, biological studies 9004-34-6D,  
**Cellulose**, derivs., biological studies 9004-38-0,  
**Cellulose** acetophthalate 9004-61-9, Hyaluronic acid 9005-49-6,  
Heparin, biological studies 9005-79-2, Glycogen, biological studies  
9034-40-6, Lhrh 11111-12-9, Cephalosporins 12629-01-5, Human growth  
hormone 13292-46-1, Rifampicin 14762-75-5, Carbon 14, biological  
studies 15663-27-1, Cisplatin 15687-27-1 20830-81-3, Daunorubicin  
21215-62-3, Human calcitonin 22204-53-1, Naproxen 22916-47-8  
23214-92-8, Doxorubicin 24967-93-9, Chondroitin 4 sulfate 24967-94-0,  
Dermatan sulfate 25316-40-9, Adriamycin 25322-46-7, Chondroitin 6  
sulfate 26589-39-9, Eudragit s 33434-24-1, Eudragit rs 36322-90-4,  
Pyroxycam 38194-50-2, Sulindac 41621-49-2, Ciclopirox olamine  
47931-85-1, Salmon calcitonin 51110-01-1, **Somatostatin**  
51803-78-2, Nimesulide 51822-44-7, Eudragit l 52028-35-0, Technetium  
90, biological studies 59277-89-3, Acyclovir 59865-13-3, Cyclosporin a  
60731-46-6, Carbocalcitonin 64211-45-6, Oxiconazole 64872-76-0,  
Butaconazole 65472-88-0, Naftifine 66376-36-1, Alendronic acid  
66419-50-9, Bovine growth hormone 69558-55-0, Thymopentin 72088-94-9,  
Carboxyfluorescein 72479-26-6, Fenticonazole 74103-06-3, Ketorolac  
84625-61-6, Itraconazole 84697-21-2, Zinoconazole 85721-33-1,  
Ciprofloxacin 86386-73-4 126467-48-9, Porcine growth hormone  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(pharmaceutical prepn. comprising coated capsules or tablets contg.  
liposome powder encapsulating drug)

L10 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2003 ACS

AN 1996:483651 CAPLUS

DN 125:123755

TI Aerosol formulations of peptides and proteins

IN Baekstroem, Kjell; Dahlbaeck, Magnus; Johansson, Ann; Kaellstrand,  
Goeran; Lindqvist, Elisabet

PA Astra Aktiebolag, Swed.; Kaellstrand, Goeran

SO PCT Int. Appl., 23 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9619197	A1	19960627	WO 1995-SE1540	19951219
	W:	AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK			
	RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	ZA 9510752	A	19960624	ZA 1995-10752	19951218
	CA 2206736	AA	19960627	CA 1995-2206736	19951219
	AU 9643591	A1	19960710	AU 1996-43591	19951219
	AU 702879	B2	19990311		
	EP 797431	A1	19971001	EP 1995-942341	19951219
	EP 797431	B1	20020522		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, LT, LV			
	BR 9510501	A	19980113	BR 1995-10501	19951219
	CN 1171046	A	19980121	CN 1995-196977	19951219
	CN 1088581	B	20020807		
	HU 77701	A2	19980728	HU 1998-560	19951219
	JP 10510827	T2	19981020	JP 1995-519730	19951219
	TW 398978	B	20000721	TW 1995-84113556	19951219
	IL 116458	A1	20010111	IL 1995-116458	19951219
	CZ 288145	B6	20010516	CZ 1997-1945	19951219
	RU 2175866	C2	20011120	RU 1997-112497	19951219
	PL 182560	B1	20020131	PL 1995-320824	19951219
	EE 3590	B1	20020215	EE 1997-137	19951219
	EP 1180365	A2	20020220	EP 2001-127823	19951219
	EP 1180365	A3	20030625		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, LT, LV			
	AT 217787	E	20020615	AT 1995-942341	19951219
	ES 2176355	T3	20021201	ES 1995-942341	19951219
	US 6524557	B1	20030225	US 1996-624504	19960405
	NO 9702781	A	19970616	NO 1997-2781	19970616
	FI 9702657	A	19970619	FI 1997-2657	19970619
PRAI	SE 1994-4467	A	19941222		
	SE 1995-2453	A	19950706		
	EP 1995-942341	A3	19951219		
	WO 1995-SE1540	W	19951219		
AB	A pharmaceutical aerosol formulation comprises (a) a hydrofluoroalkane propellant; (b) a pharmaceutically active polypeptide dispersible in the propellant; and (c) a surfactant which is a C8-C16 fatty acid or salt thereof, a bile salt, a phospholipid, or an alkyl saccharide, which surfactant enhances the systemic absorption of the polypeptide in the lower respiratory tract. Na caprate 25 parts and insulin 75 parts were micronized sep. and the mixt. was added to a bottle, which was chilled to -40.degree. and chilled 1,1,1,2-tetrafluoroethane was added. The bottle was sealed with a metering valve and then shaken vigorously for 30 s to give a good <b>suspension</b> .				
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-40.degree. and chilled 1,1,1,2-tetrafluoroethane was added. The bottle was sealed with a metering valve and then shaken vigorously for 30 s to give a good **suspension**.

ST aerosol protein hydrofluoroalkane propellant surfactant; insulin caprate tetrafluoroethane **suspension** aerosol

IT 50-99-7, Glucose, biological studies 56-40-6, Glycine, biological studies 56-41-7, Alanine, biological studies 57-48-7, Fructose, biological studies 57-50-1, biological studies 59-23-4, Galactose, biological studies 63-42-3 69-65-8, D-Mannitol 69-79-4 87-89-8, Myoinositol 87-99-0, Xylitol 99-20-7, Trehalose 107-43-7, Betaine 470-55-3 512-69-6 585-86-4, Lactitol 585-88-6, Maltitol 597-12-6, Melezitose 9005-25-8, **Starch**, biological studies 64519-82-0, Palatinin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(additive; aerosol formulations of peptides and proteins)

IT 50-56-6, Oxytocin, biological studies 75-37-6, 1,1-Difluoroethane 145-42-6, Sodium taurocholate 361-09-1, Sodium cholate 431-89-0, 1,1,1,2,3,3,3-Heptafluoropropane 629-25-4, Sodium laurate 811-97-2, 1,1,1,2-Tetrafluoroethane 822-12-8, Sodium myristate 863-57-0, Sodium glycocholate 1002-62-6, Sodium caprate 5593-79-3, Potassium cholate 7487-77-6, Potassium taurocholate 9002-60-2, Corticotropin, biological studies 9002-64-6, Parathyroid hormone 9002-68-0, Follicle-stimulating hormone 9002-72-6, Growth hormone 9003-98-9, DNase 9004-10-8, Insulin, biological studies 9007-12-9, Calcitonin 9007-92-5, Glucagon, biological studies 9015-71-8, Corticotropin-releasing hormone 9034-39-3, Growth hormone-releasing factor 9034-40-6, Gonadotropin-releasing hormone 10124-65-9, Potassium laurate 11000-17-2, Vasopressin 13040-18-1, Potassium caprate 13429-27-1, Potassium myristate 14479-93-7, Lysine laurate 16679-58-6, Desmopressin 24305-27-9, Thyrotropin-releasing hormone 40111-13-5, Potassium glycocholate 41017-85-0, Dioctanoylphosphatidylcholine 51110-01-1, **Somatostatin** 58846-77-8, Decyl glucoside 62470-55-7 69227-93-6 85637-73-6, Atrial natriuretic factor 118353-07-4 179560-07-7

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(aerosol formulations of peptides and proteins)

L10 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2003 ACS

AN 1994:541739 CAPLUS

DN 121:141739

TI Pharmaceutical nanocapsules for oral administration of peptides and **polysaccharides** comprising poly(C1-6 alkyl-2-cyanoacrylates)

IN Vranckx, Henri; Demoustier, Martine; Deleers, Michel

PA U C B, S.A., Belg.

SO Eur. Pat. Appl., 12 pp.

CODEN: EPXXDW

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 608207	A1	19940727	EP 1994-870001	19940105
	EP 608207	B1	19981014		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	AT 172111	E	19981015	AT 1994-870001	19940105
	ES 2122217	T3	19981216	ES 1994-870001	19940105
	US 5500224	A	19960319	US 1994-179205	19940110
	PL 173254	B1	19980227	PL 1994-301841	19940110
	CA 2113243	AA	19940719	CA 1994-2113243	19940111
	FI 9400115	A	19940719	FI 1994-115	19940111
	AU 9453097	A1	19940721	AU 1994-53097	19940111
	AU 670840	B2	19960801		
	NO 9400111	A	19940719	NO 1994-111	19940112
	ZA 9400205	A	19940822	ZA 1994-205	19940112

JP 06256172	A2	19940913	JP 1994-1830	19940113
RU 2145498	C1	20000220	RU 1994-2474	19940113
HU 67213	A2	19950328	HU 1994-107	19940114

PRAI GB 1993-875 A 19930118

AB Pharmaceutical nanocapsules for oral administration of peptides and **polysaccharides** comprising poly(C1-6 alkyl-2-cyanoacrylates) with diam. .ltoreq.500 nm are disclosed. Thus, 1 mL Na lauryl sulfate 5% in acetate buffer was stirred with 10 mL Miglyol 812 contg. 15% Span 80 and the **suspension** was added to 100.mu.L of butyl-2-cyanoacrylate and left for 240 min to polymerize. The nanocapsules thus obtained were stable for 18 mo at 4.degree..

TI Pharmaceutical nanocapsules for oral administration of peptides and **polysaccharides** comprising poly(C1-6 alkyl-2-cyanoacrylates)

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ST nanocapsule oral peptide **polysaccharide** alkyl cyanoacrylate

IT **Polysaccharides**, biological studies  
 RL: BIOL (Biological study)  
 (pharmaceutical nanocapsules for oral administration of peptides and, comprising poly(C1-6 alkylcyanoacrylates))

IT Peptides, biological studies  
 RL: BIOL (Biological study)  
 (pharmaceutical nanocapsules for oral administration of **polysaccharides** and, comprising poly(C1-6 alkylcyanoacrylates))

IT Pharmaceutical dosage forms  
 (nanocapsules, for oral administration of peptides and **polysaccharides**, comprising poly(C1-6 alkylcyanoacrylates))

IT 8049-62-5, Zinc insulin 9004-10-8, Insulin, biological studies  
 9007-12-9, Calcitonin 51110-01-1, **Somatostatin**  
 RL: BIOL (Biological study)  
 (pharmaceutical nanocapsules for oral administration of **polysaccharides** and, comprising poly(C1-6 alkylcyanoacrylates))

L10 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2003 ACS

AN 1992:518505 CAPLUS

DN 117:118505

TI Pharmaceutical composition of microparticles with controlled release and process of preparing it

IN Canal, Tiziana; Lovrecich, Mara Lucia; Carli, Fabio

PA Vectorpharma International S.p.A., Italy

SO Eur. Pat. Appl., 17 pp.  
 CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 486959	A1	19920527	EP 1991-119505	19911115
	EP 486959	B1	19960828		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	AT 141788	E	19960915	AT 1991-119505	19911115
	ES 2094781	T3	19970201	ES 1991-119505	19911115
	JP 04283510	A2	19921008	JP 1991-332735	19911122
	JP 3293862	B2	20020617		
	US 5536508	A	19960716	US 1993-139051	19931021
	US 5700486	A	19971223	US 1996-641039	19960430
PRAI	IT 1990-22155	A	19901122		
	US 1991-794905	B1	19911120		
	US 1993-139051	A3	19931021		

AB Pharmaceutical compns. in the form of particles comprise a biodegradable polymer and/or **polysaccharide** jellifying and/or bioadhesive polymer, an amphiphilic polymer, an agent modifying the interface properties of the particles, and a pharmacol. active substance. The compns. exhibit improved biocompatibility features and allow a controlled release of the active substance. Thus, lactic acid-glycolic acid copolymer 0.2 and stearic acid 1 g were dissolved in 24 mL CH<sub>2</sub>Cl<sub>2</sub> contg. 18 mg polyethylene glycol 6000; adriamycin 61 mg was dissolved in the soln. and the resulting soln. was emulsified in 750 mL of 0.75% aq. chitosan soln. The obtained particles in **suspension** was centrifuged, dried, and tested for the in vitro drug release rate.

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IT **Polysaccharides**, biological studies  
RL: BIOL (Biological study)  
(jellifying, controlled-release pharmaceutical particles contg.)

IT Pharmaceutical dosage forms  
(microparticles, controlled-release, biodegradable polymers and bioadhesive **polysaccharides** in)

IT 57-11-4, Stearic acid, biological studies 57-11-4D, Stearic acid, derivs. 145-42-6 8007-43-0, Sorbitan sesquioleate 9002-89-5, Polyvinyl alcohol 9003-39-8, Polyvinylpyrrolidone 9004-34-6, **Cellulose**, biological studies 9005-32-7D, Alginic acid, derivs. 9005-65-6, Tween 80 9005-67-8, Tween 60 11138-66-2, Xanthan 12441-09-7D, Sorbitan, esters 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone, SRU 25322-68-3, Polyethylene glycol 26009-03-0, Polyglycolic acid, SRU 26023-30-3, Polylactic acid, SRU 26100-51-6, Polylactic acid 26124-68-5, Polyglycolic acid 28728-97-4, Polyhydroxybutyric acid, SRU 34346-01-5, Glycolic acid-lactic acid copolymer 39464-87-4, Scleroglucan 52352-27-9, Polyhydroxybutyric acid 84563-76-8, Chitosan glutamate  
RL: BIOL (Biological study)  
(controlled-release pharmaceutical particles contg.)

IT 595-33-5 797-63-7, Levonorgestrel 9002-72-6, Somatotropin 9007-12-9, Calcitonin 9034-40-6D, LH-RH, analogs 23214-92-8, Adriamycin 27848-84-6, Nicergoline 51110-01-1, **Somatostatin** 57773-65-6 76596-57-1, Broxaterol 76596-58-2, Broxaterol hydrochloride  
RL: BIOL (Biological study)  
(controlled-release pharmaceutical particles contg. biodegradable polymers and)

L10 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2003 ACS

AN 1988:525020 CAPLUS

DN 109:125020

TI Encapsulation of gel beads containing biological materials within a permanent, crosslinked semipermeable membrane

IN Lim, Franklin; Hall, Lloyd Thomas, III

PA Damon Biotech, Inc., USA

SO PCT Int. Appl., 26 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 8800237 A1 19880114 WO 1987-US1495 19870629  
W: AU, DK, JP, NO  
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE  
AU 8776460 A1 19880129 AU 1987-76460 19870629  
PRAI US 1986-879605 19860627  
WO 1987-US1495 19870629

AB Gel beads contg. enzymes, cells, etc. are encapsulated within a permanent, covalently crosslinked semipermeable membrane. T40 dextran 0.2 g and sulfosuccinimidyl-6-(4'-azido-2'-nitrophenylamino)hexanoate 5 mg were dissolved in 20 mL saline soln. and the soln. was irradiated for 30 min with a high pressure mercury lamp while maintaining the temp. at 80.degree.. A 100 .mu.L pellet of myeloma cells was suspended in 2 mL 1% isotonic chitosan acetate and this **suspension** was added dropwise to a 3 wt.% Na citrate soln. to form polyionically bonded capsules. The capsules were added to the activated dextran to prep. a covalently bonded membrane around the ionically bonded membrane. The capsules remained intact even after disintegration of the core by addn. of CaCl2, which also caused loss of the inner, ionically bonded membrane.

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IT **Polysaccharides**, biological studies

RL: BIOL (Biological study)

(free amino or acid group-contg., biol. materials immobilized in beads of, in membrane encapsulation process)

IT 51-48-9P, Thyroxin, preparation 9002-62-4P, Prolactin, preparation 9002-64-6P, PTH 9002-68-0P, Follicle stimulating hormone 9004-10-8P, Insulin, preparation 9007-92-5P, Glucagon, preparation 51110-01-1P, **Somatostatin**

RL: PREP (Preparation)

(manuf. of, with encapsulated cells, encapsulation process in relation to)